



## INTRODUCTION

This document presents the Performance Management Plan for the Fernald Closure Project near Cincinnati, Ohio. The Fernald Performance Management Plan outlines the strategic initiatives, execution strategies, and performance management approaches that form the backbone of the commitment of the Fernald team (DOE-OH and its closure contractor, Fluor Fernald) to achieve accelerated site closure by 2006. The Plan is aimed at satisfying National Defense Authorization Act (HR 4546) requirements for a high-level plan that defines activities needed to accelerate environmental risk reduction and cleanup, and which are fully coordinated with Federal and State agencies with regulatory jurisdiction over the site.

Fernald's 2006 closure strategy is directly linked to the expectations and recommendations contained in DOE's February 4, 2002 Top-to-Bottom Review, which calls for a fundamental change in the way cleanup will be carried out at DOE sites nationwide. In essence, DOE is prioritizing and incentivizing those sites that can – in partnership with their regulators, contractors, and communities – change their way of doing business to achieve a common goal of accelerated cleanup and meaningful risk reduction. DOE, U.S. EPA, and Ohio EPA have jointly committed to the objective of accelerating completion and increasing the confidence in a 2006 closure in a signed Letter of Intent, included with this Plan.

Unlike the larger, more complex DOE sites, Fernald offers a unique opportunity to achieve accelerated closure – consistent with the Top-to-Bottom Review – at a site where all critical remedial action decisions are in place, DOE and its stakeholders and regulators are in alignment, and fieldwork is substantially underway for all subprojects. This Performance Management Plan explicitly recognizes the straightforward nature of Fernald's cleanup approach, the maturity of its remedial decisions, and the independently validated and clearly defined baseline path for achieving 2006 closure. This baseline path incorporates the aggressive results-oriented activities needed to reach accelerated site closure.

### Plan Objectives and Organization

This Performance Management Plan builds upon the extensive planning already set in motion for Fernald. Considering the maturity of the project and the status of its remedial decisions, this site-specific Plan is aimed at accomplishing the following two fundamental objectives:

- Identification of the strategic initiatives that will drive Fernald closure by 2006, in accordance with the remedial actions required by Fernald's five signed CERCLA Records of Decision and the detailed work sequence defined in Fernald's independently validated 2006 closure baseline.
- Definition of specific actions, due dates, and responsible entities that will carry the strategic initiatives for a 2006 closure into a measurable, disciplined project activity.

In order to achieve these two fundamental objectives, the Performance Management Plan is designed to answer four key questions:

1. What are the execution strategies and approaches to completing the remaining scope for each of the major remedial action subprojects that define the Fernald Closure Project?
2. What critical schedule or implementation risks remain in the execution of the work scope, and what resulting actions are necessary to address them?
3. What are the funding requirements necessary to achieve accelerated closure, and how will the Fernald team put additional funding to use, should such funds be made available?
4. What tailored project management tools and contract management strategies will be utilized to effectively track project progress, identify earned value, and support timely and effective project decision-making?

The remainder of this Plan provides answers to these questions, and explains how the Fernald team will safely and cost effectively implement the work through an aggressive, priority-based execution approach.

The Performance Management Plan is divided into four major sections. The remainder of this Introduction provides an overview of the Fernald Closure Project and highlights the Fernald team's March 2002 response to the Top-to-Bottom Review.

The second section describes Fernald's 2006 funding profile and the eight strategic initiatives that comprise the 2006 execution plan, including the project-specific execution strategy, progress to-date, and key actions and responsibilities remaining for each major subproject.



The second section also identifies the key optimization opportunities within the 2006 execution plan that address how additional funding would be put to work at Fernald, should it be made available. These key optimization opportunities promote ways to more quickly eliminate threats to human health and the environment, decrease schedule risk, and reduce life-cycle cost in exchange for additional near-term funding availability.

The third section identifies the tailored performance management tools the Fernald team is utilizing to track performance, assess trends, identify and mitigate implementation risk, manage performance-based contracts, and satisfy the reporting needs of Fernald's stakeholders and managing entities. The final section provides the Plan's conclusion and path forward for realization of the 2006 site closure.

Three attachments accompany this Plan. Attachment 1 summarizes Fernald's response for each of the 12 areas encompassed by the Top-to-Bottom Review. Attachment 2 provides a compilation of the project-wide actions and responsibilities for the Plan, in the form of an Action/Responsibility Matrix. DOE is providing various government-furnished services and items that are required to ensure closure of the Fernald site in 2006, which are delineated in Attachment 3. Lastly, Attachment 4 provides the joint Letter of Intent from DOE and the state and federal regulatory agencies for the concept of acceleration of Fernald closure by December 2006.

The Performance Management Plan will remain in place throughout the duration of Fernald's remaining 2006 site closure scope. During ongoing field implementation, the Fernald team will continue to look for ways to further streamline and improve the acceleration initiatives captured in the Plan.

### **Fernald Closure Project Overview**

In 1952 Fernald began its uranium production mission as the Feed Materials Production Center in support of the nation's weapons program. During 37 years of operation, 462 million pounds of pure uranium metal products were produced for use in the production reactors at DOE's Hanford and Savannah River facilities.

When operations ceased in 1989, there were 31 million pounds of uranium product present on site, 2.5 billion pounds of waste, and 2.75 million cubic yards of contaminated soil and debris. In addition, a 223-acre portion of the underlying Great Miami Aquifer was found to be affected by uranium at levels above drinking water standards.

In 1992 the site was renamed the Fernald Environmental Management Project and the mission was formally changed to environmental restoration under CERCLA. To facilitate restoration, the CERCLA work scope for the 1,050-acre facility was divided into five operable units: the waste pits (Operable Unit 1); other waste units (Operable Unit 2); the Production Area facilities and legacy-waste inventories (Operable Unit 3); Silos 1-4 (Operable Unit 4); and contaminated environmental media (Operable Unit 5). Since 1992, CERCLA remedial investigations and feasibility studies have been completed for each of the operable units, and final Records of Decision to establish cleanup levels and document the cleanup remedies have been signed for each by DOE, U.S. EPA, and Ohio EPA.

The final remedial actions include: facility decontamination and dismantlement (D&D); on-site disposal of the majority of contaminated soil and D&D debris; off-site disposal of the contents of the two K-65 Silos (Silos 1&2), Silo 3, waste pit material, nuclear product inventory, low-level waste, mixed waste, and limited quantities of soil and D&D debris not meeting on-site waste acceptance criteria; and treatment of contaminated groundwater to restore the Great Miami Aquifer.

Ultimately, approximately 975 acres of the 1,050-acre property will be restored to beneficial use as an undeveloped park, and approximately 75 acres will be dedicated to the footprint of the On-Site Disposal Facility. Contaminated portions of the aquifer will be restored to beneficial use as a drinking water supply, and long-term stewardship actions will be put in place consistent with the final land use. Details on these activities will be discussed in a long-term stewardship plan.



*Fernald produced 462 million pounds of high-purity uranium during its 37-year defense-program history.*



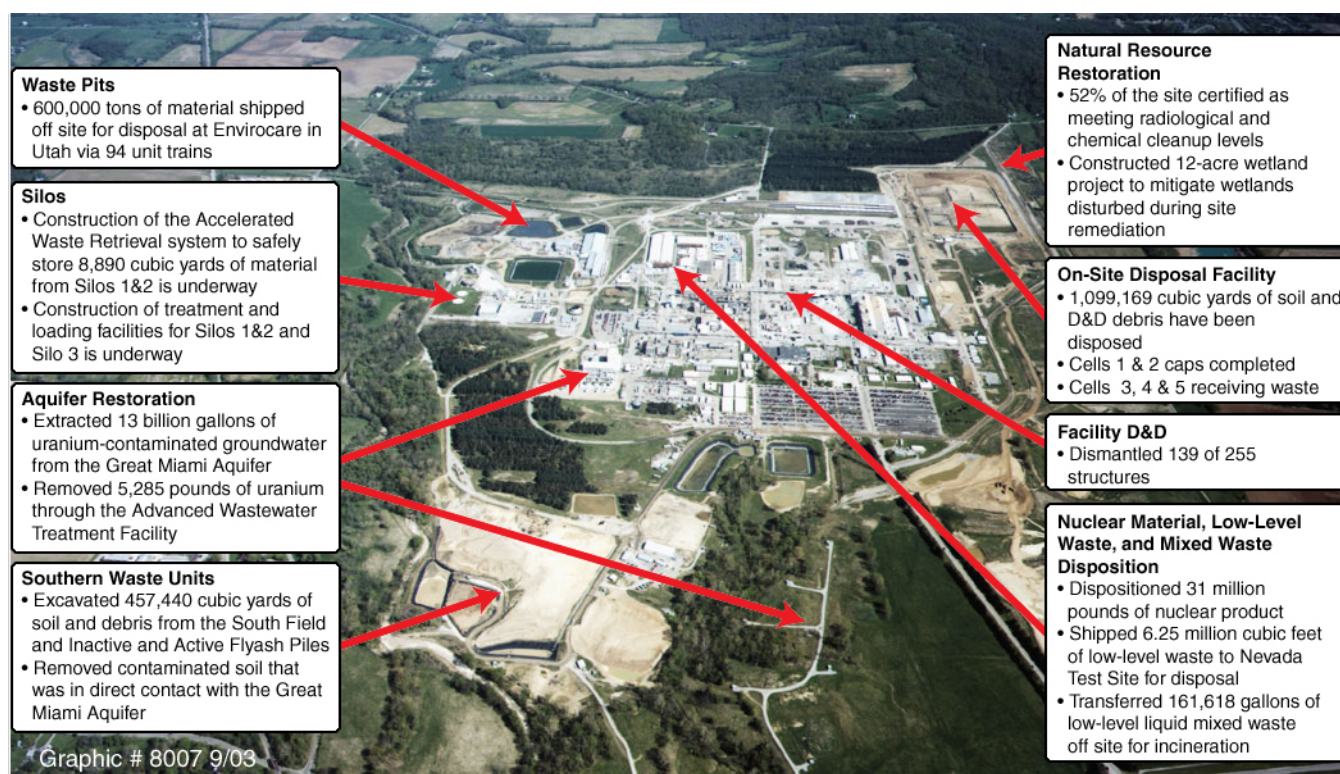
The FCP is a 2006 accelerated closure site. In order to achieve site closure, the following activities must be completed (current closure baseline targets June 30, 2006 as completion date):

- Removal, treatment, and off-site disposal of the Silos 1&2 material
- Removal and off-site disposal of Silo 3 material
- Excavation and disposal of material in the waste pits and other waste units
- Disposal of nuclear material product, low-level waste, and mixed waste
- Excavation and disposal of soil and completion of the On-Site Disposal Facility
- Facility D&D and disposal of D&D debris
- Implementation of a groundwater remediation approach that results in the most cost-effective infrastructure remaining at site closure and is consistent with the Comprehensive Groundwater Strategy
- Restoration of the site in accordance with the January 2002 draft of the Natural Resources Restoration Plan.

As shown in Figure 1, significant progress has already been made in remediating the Fernald site. To date, the Fernald team has dismantled 139 structures out of a total of 255, including Plant 1, Plant 4, Plant 5, Plant 6, Plant 7, Plant 9, the Maintenance Building, and the Boiler Plant, which were some of the largest and most complex buildings on site.

Fernald's eight-cell engineered On-Site Disposal Facility has received 1,099,169 cubic yards of soil and debris to date. Liners have been constructed for Cells 1 through 5 and the caps have been completed for Cells 1 and 2. Cells 3, 4, and 5 are currently receiving waste, and liner construction is underway for Cell 6.

Fifty-two percent of the site area has been certified as meeting radiological and chemical cleanup levels. Four of eleven natural resource restoration subprojects have been completed, including construction of a 12-acre wetland mitigation subproject and an 18-acre forest restoration subproject.



**Figure 1:** To date, the Fernald team has completed more than 54% of the Fernald cleanup while maintaining a safety record that is consistently below comparable private industry averages.



Waste pit remediation is 74% complete and 600,000 tons of material have been shipped off-site via rail to Envirocare in Utah. Disposition of Fernald's inventory of nuclear material product is 100% complete. Construction of the Accelerated Waste Retrieval Facility to safely store 8,890 cubic yards of material from Silos 1&2 prior to treatment and disposal is currently underway. Over 13 billion gallons of uranium-contaminated groundwater have been extracted from the Great Miami Aquifer. Based on the approved Fernald closure baseline, the Fernald team has completed more than 54% of the Fernald site cleanup – including, most notably, the removal of all legacy nuclear materials from the site.

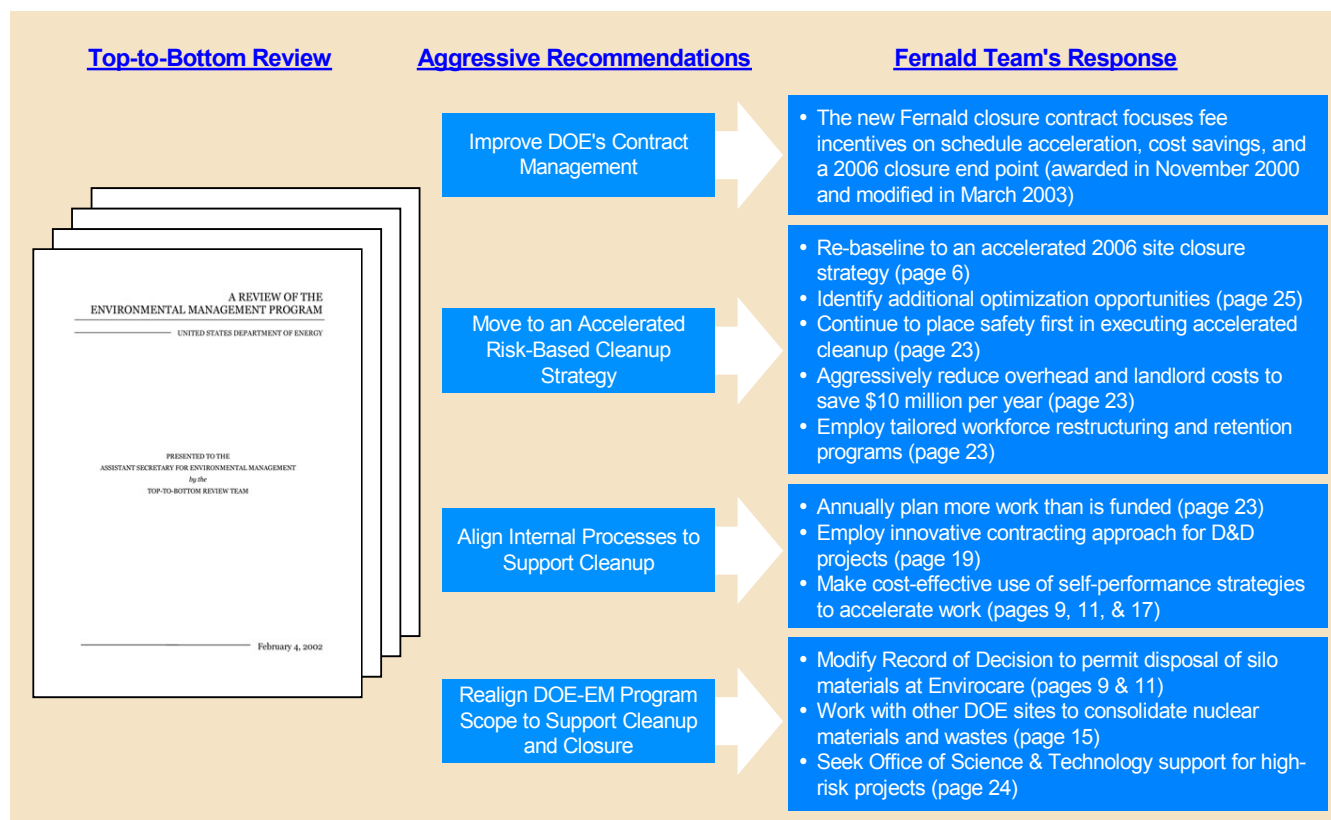
### **Fernald's Response to the Top-to-Bottom Review**

In its March 2002 response to the Top-to-Bottom Review, the Fernald team outlined an aggressive approach to satisfying each of the four major recommendations carried forward from the review.

Fernald's response reaffirmed the team's strategy and execution approach to achieve accelerated site closure in 2006, and outlined the needed support from DOE-HQ and Congress to achieve the 2006 objective.

The aggressive acceleration actions contained in the Fernald team's response have been carried forward to this Performance Management Plan. Figure 2 identifies the four major recommendations originating from the Top-to-Bottom Review, highlights the Fernald team's response, and provides a cross reference as to where in this Performance Management Plan the responses are addressed. Attachment 1 then summarizes Fernald's response for all 12 items covered by the review.

In partnership with our regulators and stakeholders, the Fernald team will achieve site closure in 2006 by implementing the aggressive initiatives and proactive approaches set in motion by the expectations and recommendations of the Top-to-Bottom Review.



**Figure 2:** The Top-to-Bottom Review offers four aggressive recommendations, all of which are recognized in this Plan and incorporated into Fernald's 2006 closure strategy.